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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/781,113

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Clemens Johannes Maria De Vroome

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EXAMINER

CULLER, JILL E

ART UNIT

PAPER NUMBER

2854

MAIL DATE

DELIVERY MODE

03/24/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/781,113

Applicant(s)VROOME, CLEMENS JOHANNES
MARIA DE**Examiner**

Jill E. Culler

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2007 and 22 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 and 20-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 and 20-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2, 5, 7-8, 10-18 and 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,058,844 to Niemiec in view of U.S. Patent No. 4,508,033 to Fischer, U.S. Patent No. 3,238,869 to West et al., and U.S. Patent No. 3,875,682 to Justus et al.

With respect to claims 1, 5, 7 and 10-15, Niemiec teaches a web-fed rotary printing press, in the form of a web-fed rotary offset press, comprising: at least one press cylinder, 16, in the form of a driven, rotating element, for printing a paper web, 14; a dryer, 18, disposed downstream of said press cylinder, said dryer guiding the paper web along a path; and a first pull roll, 20, which is a driven, rotating cooling roll, disposed downstream of said dryer for conveying the paper web along the path with a given tensile stress.

Niemiec does not teach an apparatus downstream of the press cylinder and upstream of the dryer for separating the paper web from said press cylinder during a normal printing operation, or a second pull roll, in the form of a driven, rotating element, disposed downstream of said press cylinder and upstream of said dryer; or a second apparatus for driving said pull roll, said second apparatus driving said first pull roll at a

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rotational speed being reduced as compared with a rotational speed of said press cylinder in order to set the tensile stress to a value suitable for conveying the paper web after separation from the press cylinder, such that the tensile stress is considerably lower than a tensile stressing a printing path upstream of said at least one printing cylinder, said given tensile stress being less than 50 N/m.

Fischer teaches a printing press having a pull roll, 14, 15, which is a driven, rotating element, disposed downstream of a press cylinder, 5, and upstream of a dryer, 8.

It would have been obvious to one having ordinary skill in the art at the time of the invention to use the pull roll of Fischer with the printing machine of Niemiec in order to more smoothly transition the web from the printing press cylinders into the dryer.

West et al. teaches an apparatus, 160, 161, disposed downstream of a press cylinder, 30, for separating a web from the press cylinder. See column 10, lines 3-16.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the invention of Niemiec to have a separating apparatus, as taught by West et al. in order to improve the transition of the web from the last press cylinder into the dryer and minimize potential damage to the web.

Justus et al. teaches an apparatus for driving a pull roll for a paper web at a rotational speed being reduced as compared to a rotational speed of a press cylinder in order to set the tensile stress to a value suitable for conveying the paper web after separation from the press cylinder, thereby providing a tensile stress considerably lower

than that in a printing path upstream of said at least one press cylinder. See column 2, line 65 – column 3, line 4.

It would have been obvious to one having ordinary skill in the art at the time of the invention to use the pull roll driving apparatus of Justus et al. with the pull roll of Niemiec in order to enhance the tendency of the edge roll to eliminate flutter.

Although Niemiec does not explicitly teach controlling the second tensile stress to a value less than 50 N/m, one having ordinary skill in the art would recognize that the acceptable tensile stress would be highly dependent upon the type of material used in the paper web and therefore the ideal values could be best determined through routine experimentation.

With respect to claims 2 and 8, Niemiec does not teach a third apparatus for controlling the rotational speed of the first pull roll and of the press cylinder, said third apparatus controls the rotational speed of said pull roll to a value below a value of the rotational speed of said press cylinder.

Justus et al. teaches an apparatus for driving a pull roll for a paper web at a rotational speed being reduced as compared to a rotational speed of a press cylinder. See column 2, line 65 – column 3, line 4.

It would have been obvious to one having ordinary skill in the art at the time of the invention to use the pull roll driving apparatus of Justus et al. with the pull roll of Niemiec in order to enhance the tendency of the edge roll to eliminate flutter.

With respect to claims 16-18 and 22, Niemiec does not teach that the drying path is composed of path parts which follow one another and are oppositely curved, is substantially meander-like, or is substantially sinusoidal.

Justus et al. teaches a drying path composed of path parts which follow one another and are oppositely curved, is substantially meander-like, or is substantially sinusoidal. See Figure 1.

It would have been obvious to one having ordinary skill in the art at the time of the invention to use the drying path of Justus et al. with the dryer of Niemiec in order to reduce flutter and improve drying efficiency.

With respect to claim 20, although Niemiec does not explicitly teach controlling the second tensile stress such that the drying path has a radii of curvature following one another of in each case less than 200 mm, these values would appear to be specific to a given application and could be readily determined by routine experimentation.

With respect to claim 21, Niemiec teaches the use of a dryer, 8, through which a temperature of the paper web along the drying path would increase.

3. Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niemiec in view of Fischer, West et al. and Justus et al., as applied to claims 1-2, 5, 7-8, 10-18 and 20-22 above and further in view of U.S. Patent No. 6,550,390 to Frankenberger.

Niemiec, Fischer, West et al. and Justus et al. teach all that is claimed, as in the above rejection of claims 1-2, 5, 7-8, 10-18 and 20-22 except that the first apparatus for

separating the paper web from said press cylinder separates the paper web from said press cylinder without contact, having at least one element selected from the group consisting of blowing elements and ultrasound elements.

Frankenberger teaches an apparatus for separating a paper web from a cylinder using ultrasonic waves to separate the paper web without contact. See column 4, lines 45-60.

It would have been obvious to one having ordinary skill in the art at the time of the invention to further modify the invention of Niemiec to use the ultrasonic separation device of Frankenberger in order to be able to separate the paper web from the cylinder with less potential for damage to the paper web.

4. Claims 6 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niemiec in view of Fischer, West et al. and Justus et. al., as applied to claims 1-2, 5, 7-8, 10-18 and 20-22 above, and further in view of U.S. Patent No. 5,913,471 to Makosch et al.

Niemiec, Fischer, West et al. and Justus et al. teach all that is claimed, as in the above rejection of claims 1-2, 5, 7-8, 10-18 and 20-22, except that the second pull roll is configured or coated in an ink-repellent manner, at least in some sections.

Makosch et al. teaches a separating roll, 3a, 4a, for a printing press that is configured or coated in an ink-repellent manner. See column 3, lines 25-27.

It would have been obvious to one having ordinary skill in the art at the time of the invention to further modify the invention of Niemiec to use the ink repellent

separating roll, as taught by Makosch et al., in order to prevent an ink layer from building up.

Response to Arguments

5. Applicant's arguments filed December 21, 2007 have been fully considered but they are not persuasive.

In response to applicant's argument that the combination of references fails to teach or suggest reducing the tensile stress on a paper web to less than 50 N/m along the drying path, as discussed in the above rejection, although the references do not explicitly teach this level of tensile stress, one having ordinary skill in the art would recognize that the acceptable tensile stress would be highly dependent upon the type of material used in the paper web and the characteristics of that paper material and therefore the ideal values could be best determined through routine experimentation. For example, a thin, paper web would react very differently to stress from a thick, coated, paper web. Therefore, applicant's arguments would appear to be based upon specific process limitations not included in the claims.

In response to applicant's arguments that the combination of references would destroy the requirements of the Fischer reference, the Fischer reference is relied upon in the rejection solely for the teaching of a pull roll in a printing press located downstream of a press cylinder and upstream of a dryer. Upon consideration of the combination of references, one having ordinary skill in the art would have no reason to consider that the pull roll of Fischer would cease to function when placed in the

combination and therefore any examination of the other parts of the Fischer reference which do not affect the functioning of the pull roll would not appear to have any bearing on the use of this reference in this situation.

In response to applicant's argument that the conventional tensile stress for a printing path always has to be in the range of 500 N/m, although applicant continues to insist that this is part of the general knowledge in the art, there continues to be no reference to any outside source beyond applicant's disclosure of this figure. As discussed above, there are many different types of paper used in paper webs and applicant's arguments appear to be based upon specific process limitations not included in the claims.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jill E. Culler whose telephone number is (571) 272-2159. The examiner can normally be reached on M-F 10:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

jec

/Jill E. Culler/
Primary Examiner, Art Unit 2854